



Amendments to the Specification:

Please replace paragraph [0027] with the following amended paragraph:

[0027] FIGs. 15A – 15D illustrate an embodiment of the present invention; ~~and~~

Please replace paragraph [0028] with the following amended paragraph:

[0028] FIGs. 16A – 16D illustrate another embodiment of the present invention[~~[[.]]~~]; and

Please add the following new paragraph after paragraph [0028]:

[0028.1] FIGs. 17A and 17B illustrate flow charts of processes for shifting and storing data based on a count.

Please replace paragraph [0066] with the following amended paragraph:

[0066] Other ways of achieving the same result include, as shown in FIG. 17A, resetting the counter to zero and loading each PE with a target value. Thereafter, the counter is incremented producing a current count. When the current count equals the target value, the data value is selected as the final output value to be loaded into the output matrix. Generally, as shown in FIG. 17B, a counter is set to a first known value. Then, at certain programmable points in the algorithm, the value of the counter may be altered, up or down, by a programmable amount. Storing[~~[[,]]~~] occurs when a current count in the counter hits a pre-defined target value.